BUSINESS PLAN 2016–19
Energy

ACCOUNTABILITY STATEMENT

This business plan was prepared under my direction, taking into consideration the government's policy decisions as of March 17, 2016.

original signed by

Margaret McCuaig-Boyd, Minister

MINISTRY OVERVIEW

The ministry consists of the Department of Energy, the Alberta Energy Regulator, the Alberta Utilities Commission, the Alberta Petroleum Marketing Commission and the Post-closure Stewardship Fund.

The ministry ensures sustained prosperity in the interests of Albertans through responsible resource development and the stewardship of energy and mineral resource systems.

- The Department of Energy enables responsible energy and mineral resource development that considers the social, economic and environmental outcomes that support Albertans' quality of life and the prosperity of the province. The department oversees Alberta's royalty and tenure systems; collects revenues from energy resource development; develops strategic and integrated policies and plans for sustainable energy and mineral development; enables markets and Alberta's electricity system, and administers the Post-closure Stewardship Fund.
- The Alberta Energy Regulator regulates oil, natural gas, oil sands and coal development in Alberta. It ensures the safe, efficient, orderly and environmentally responsible development of Alberta's energy resources. This includes allocating and conserving water resources, managing public lands and protecting the environment while securing economic benefits for all Albertans.
- The Alberta Utilities Commission regulates the utilities sector, natural gas and electricity markets to protect the social, economic and environmental interests of Alberta where competitive market forces do not.
- The Alberta Petroleum Marketing Commission is a provincial agency that markets the Crown's share of crude oil production. The Alberta Petroleum Marketing Commission supports projects that economically benefit the province through improving market access or maximizing the value of Alberta's non-renewable resources.
- The Post-closure Stewardship Fund, financed by carbon capture and storage operators in Alberta, is a liability fund that became active in 2015 to help provide for the maintenance of carbon capture and storage sites by the Government of Alberta, after carbon capture and storage operations cease and the government assumes liability for any stored carbon dioxide.

A more detailed description of Energy and its programs and initiatives can be found at www.energy.alberta.ca.

STRATEGIC CONTEXT

The outcomes and key strategies identified in this business plan are aligned with the strategic direction of the Government of Alberta.

Energy and mineral resource development in Alberta is a key provider of jobs, business opportunities and tax and royalty revenues that fund important government programs for Albertans. Energy development also drives activity in a number of other industries, including construction and manufacturing, which benefit communities across Alberta and Canada. With low oil prices and a world focus on climate change and protecting the environment, energy development will face increasing challenges and opportunities. More than ever before, Alberta must lead and innovate to meet the challenges and maintain its position in the global economy.

Alberta is committed to taking great action and tackling the problem of climate change while maintaining its position as a progressive and forward-thinking global energy provider. Alberta's Climate Leadership Plan drives a shift to a lower carbon economy which is essential to elevating Alberta's environmental reputation and supporting efforts to diversify markets for the province's energy products. Assessing energy issues on their economic, social and environmental merits will develop a new atmosphere of greater trust and mutual economic interest. Alberta is also committed to phasing out the use of coal-fired electricity generation and expanding the use of alternative energy sources including wind, solar and industrial co-generation to improve both the environment and the health of all Albertans. The implementation of Alberta's Climate Leadership Plan and the phasing out of coal will have regard for ensuring stable prices and the reliability of the system, while treating generators and investors fairly.

The province's energy resources are owned by the people of Alberta and government is acting on the recommendations of the 2015 Alberta at a Crossroads: Royalty Review Advisory Panel Report, which looked for opportunities to provide optimal returns to Albertans, encourage industry investment, encourage diversification opportunities and innovation, and support responsible resource development. The government will help ensure optimal returns for Albertans, the energy industry and investors by removing distortions and disincentives in the system, increasing transparency and accountability, and acting on opportunities to promote diversification and create jobs.

Diversification starts by building on Alberta's core strength: energy. Alberta is committed to acting on opportunities to move up the energy value chain to diversify Alberta's energy industry and provide good jobs to support Alberta families. Adding value through upgrading and refining energy resources will help to ensure economic prosperity for future generations of Albertans.

Having the necessary infrastructure to move energy products to tidewater will allow the best value possible from Alberta's energy resources in markets all around the world. To fully realize this potential, the Government of Alberta has committed to supporting efforts to expand market access by addressing physical barriers, such as pipelines, for the sake of Albertans and all Canadians who benefit from a strong energy industry.

Responsible development of Alberta's energy resources is a priority for the ministry. The government is committed to continued and expanded engagement with Albertans, Indigenous peoples, industry, markets, as well as representatives of other levels of government and other provinces to further support public trust on energy development decisions, promote wise energy use, and provide neutral and meaningful information. Alberta's energy resources and expertise can be used as a foundation for developing clean energy solutions and discovering new, low emission uses for Alberta's carbon-based resources. To achieve this, the government must take an approach that jointly considers the economic, social and environmental costs, risks and benefits in development decisions. Taking a broader view of the energy system will identify new opportunities for Alberta to lead in energy development and use beyond the current hydrocarbon focus. Maintaining a strong regulatory system and managing cumulative effects and potential liabilities of resource development are important to limiting social and environmental impacts of development.

Alberta's aspiration is that the province's energy enriches lives today and for generations to come.

OUTCOMES, KEY STRATEGIES AND PERFORMANCE MEASURES

Outcome One: Albertans benefit from responsible energy and mineral development and access to global markets

The ministry accurately calculates and fully collects revenues from energy and mineral royalties, land sales, bonuses and rent. The ministry continues to seek opportunities to increase access to global markets to strengthen both provincial and national economies.

Key Strategies:

1.1 Implement recommendations from Alberta at a Crossroads: Royalty Review Advisory Panel Report, including:

- establishing guiding principles and design criteria for Alberta's royalty framework;
- modernizing Alberta's royalty framework for crude oil, liquids and natural gas;
- enhancing royalty processes for the oil sands; and
- seizing opportunities to enhance value-added processing.

1.2 Foster and strengthen energy-related relationships nationally and globally to achieve market access for Alberta's energy resources and products.

1.3 Develop policies and conditions that support the diversification of energy resource value chains.

Performance Measures	Last Actual 2014-15	Target 2016-17	Target 2017-18	Target 2018-19
1.a Revenues from oil, oil sands, gas, land sales and bonuses are fully collected: • Percentage of amounts collected compared to owed	100%	100%	100%	100%
1.b Alberta's oil sands supply share of global oil consumption	2.5%	2.7%	2.8%	2.9%

Performance Measures under Development:

Measures for Alberta's royalty framework are under development to reflect progress towards the framework's recommendations.

Linking Performance Measures to Outcomes:

1.a It is the responsibility of the department to collect the Crown's share of energy and mineral development revenues on behalf of Albertans. This measure provides assurance that the government is collecting all revenues owed from the development of Alberta's resources.

1.b The increasing importance of Alberta oil sands in the global energy mix is a measure of success in being recognized as a responsible world-class energy supplier.

Performance Indicators		Actual 2011	Actual 2012	Actual 2013	Actual 2014
1.a	Alberta's total crude bitumen production (thousands of barrels per day)	1,744.6	1,921.7	2,085.4	2,304.2
1.b	Alberta's conventional crude oil and equivalent annual production (thousands of barrels per day)	609.4	672.0	709.0	742.8
1.c	Alberta's total marketable natural gas annual production (billion cubic feet per day)[1]	10.38	9.80	9.69	9.91
1.d	Upstream oil and gas industry investment in Alberta[2] • Total conventional and non-conventional oil and gas extraction investment ($ billions)	32.7 (2010)	40.9 (2011)	47.2 (2012)	51.6 (2013)
1.e	Total percentage of crude oil leaving Alberta	83%	84%	85%	85%
1.f	Total percentage of natural gas leaving Alberta[1]	69%	66%	64%	65%

Notes:

1 The Alberta Energy Regulator modified the methodology and format of the ST-3 Gas Report (effective January 2013), affecting reported actuals for performance indicators 1.c and 1.f.

2 The upstream oil and gas sector consists of the conventional oil and gas industry and the oil sands industry. Upstream refers to the production of oil, gas and oil sands, including entities engaged in operating oil and gas field properties, and activities such as exploring for crude petroleum and natural gas, among others. Historical Statistics Canada investment data has been revised due to methodology changes. Last actual available data is for 2013, therefore results for the indicator at this time do not reflect the significant decline in oil prices in 2014.

Outcome Two: Effective stewardship and regulation of Alberta's energy and mineral resources

The ministry engages with all stakeholders on issues involving responsible resource development of Alberta's energy and mineral resources. A strategic and integrated system approach to responsible resource development in the province strengthens the overall environmental, economic and social outcomes for the benefit of Albertans. Through the Alberta Energy Regulator, the ministry regulates Alberta's energy industry to ensure the efficient, safe, orderly and environmentally responsible development and sustainable management of energy resources. Through the Alberta Utilities Commission, the ministry further supports the interests of Albertans by ensuring that the delivery and regulation of Alberta's utility service is fair and responsible.

Key Strategies:

2.1 Continue to collaborate with other ministries to develop and implement policies and programs to manage the cumulative effects of resource development, including regional planning, and dealing with liabilities related to inactive, aging and orphaned wells and facilities, and reclamation timelines.

2.2 Continue to develop Alberta's Energy Sustainability Strategy to provide a long-term perspective on Alberta's energy system to anticipate and adapt to emerging issues and developments that may shape energy globally over the next thirty to forty years.

2.3 Enhance regulation and oversight to ensure the safe, efficient, effective, credible and environmentally responsible development of Alberta's energy resources.

2.4 Enhance regulation and oversight of Alberta's utilities to ensure social, economic and environmental interests of Alberta are protected by effective utility regulation.

Performance Measures	Last Actual 2014-15	Target 2016-17	Target 2017-18	Target 2018-19
2.a Regulatory compliance (Alberta Energy Regulator):[1] • Percentage of inspections that are in compliance with regulatory requirements	99%	97%	98%	98%
2.b Timeliness of the needs and facility applications (Alberta Utilities Commission): • Percentage of needs and facility applications determined within 180 days of the application being deemed complete	100%	100%	100%	100%

Note:

[1] The percentage for 2014 is based on the data available since July 2014, when the Alberta Energy Regulator began transitioning to a new compliance assurance framework.

Linking Performance Measures to Outcomes:

2.a Regulatory requirements are established by the Alberta Energy Regulator to ensure the efficient, safe, orderly and environmentally responsible development of energy resources. This measure helps indicate industry's compliance with those requirements.

2.b Trust in the utility regulator is enhanced by efficient regulation and oversight. This measure provides assurance that Alberta Utilities Commission regulatory decisions for approvals, permits or licences in respect of a needs identification document, transmission line or part of a transmission line are made in a timely, fair and transparent manner.

Outcome Three: Albertans benefit from safe and reliable energy-related infrastructure and innovative energy technologies

Reliable, efficient and resilient energy systems are vital to the social and economic foundation of Alberta. To meet the increasing demand for low emissions energy, energy-related infrastructure and innovative technology are needed both in Alberta and globally. The ministry manages and collaborates with other ministries, agencies and stakeholders in the development and delivery of effective policies and programs to support energy infrastructure and technology.

Key Strategies:

3.1 Collaborate with other ministries to implement recommendations and manage regulatory requirements from Alberta's Climate Leadership Plan to establish Alberta as an environmentally responsible energy producer and collaborative partner in overall Canadian efforts to reduce emissions, including:

- leading development of a plan to phase out emissions from coal fired electricity generation by 2030;
- leading development of a plan to enable the increased development and use of renewable energy in Alberta by 2030; and
- developing a plan to reduce methane levels for the oil and gas sector by 2030.

3.2 Develop and implement policy to smart regulate Alberta's electricity retail system that will protect consumers.

Performance Measures	Last Actual 2014-15	Target 2016-17	Target 2017-18	Target 2018-19
3.a Transmission losses	3.0%	3.0%	3.0%	3.0%
3.b Power generation: • Margin (megawatt) between firm generating capacity and peak demand [1]	21%	Maintain a minimum 7% margin over peak demand		

Note:

[1] For electric system reliability purposes, Alberta is required to constantly maintain a minimum seven per cent real-time operating reserve. This requirement is stipulated by the Western Electricity Coordinating Council, the regional entity responsible for coordinating electric system reliability in several member jurisdictions in Canada, United States and Mexico.

Performance Measures under Development:

Measures for Alberta's Climate Leadership Plan are under development to reflect progress towards the Plan's recommendations.

Linking Performance Measures to Outcomes:

3.a A reliable and efficient electricity transmission system is important to ensure electricity can be delivered when needed. By measuring transmission losses, the department will demonstrate to generation developers the efficient movement of electricity to market which will, in turn, build industry confidence to develop new generation infrastructure.

3.b Monitoring the development of both the growth in demand and growth in new generation capacity is fundamental for investor interest which will enable the system to stay ahead of demand and ensure adequate supply and system reliability through timely and appropriate investment in upgrading and new generating facilities.

Performance Indicator	Actual 2011	Actual 2012	Actual 2013	Actual 2014
3.a Alternative and renewable generation capacity in Alberta (megawatts)[1]				
• Gas cogeneration	3,651	4,051	4,160	4,159
• Wind	895	1,113	1,113	1,459
• Hydro	900	900	900	900
• Biomass	359	414	417	438
• **Total megawatts**	**5,805**	**6,478**	**6,590**	**6,956**

Note:

[1] Capacity represents the maximum electric output a generating unit can produce without exceeding the design limits and is measured in megawatts. This is not the same as the amount of electricity generated over a specific period of time.

STATEMENT OF OPERATIONS

(thousands of dollars)	Comparable					
	2014-15 Actual	2015-16 Budget	2015-16 Forecast	**2016-17 Estimate**	2017-18 Target	2018-19 Target
REVENUE						
Freehold Mineral Rights Tax	171,831	87,000	74,000	**71,000**	89,000	97,000
Natural Gas and By-Products Royalty	989,160	343,000	341,000	**151,000**	230,000	355,000
Crude Oil Royalty	2,244,745	536,000	610,000	**332,692**	659,462	616,462
Bitumen Royalty	5,049,393	1,547,000	1,144,000	**656,000**	1,586,000	2,986,000
Coal Royalty	15,755	15,000	13,000	**11,000**	12,000	11,000
Bonuses and Sales of Crown Leases	476,331	181,000	210,000	**95,000**	157,000	156,000
Rentals and Fees	172,489	145,000	156,000	**118,000**	109,000	101,000
Energy Regulation Industry Levies and Licences	258,278	270,093	270,093	**268,403**	268,403	273,178
Utility Regulation Industry Levies and Licences	33,782	35,740	35,740	**35,038**	34,945	35,648
Investment Income	1,894	1,600	1,600	**1,167**	1,167	1,167
Other Revenue	26,595	63,559	59,559	**4,976**	4,372	4,372
Net Income from Commercial Operations	13,759	20,000	20,000	**28,800**	49,000	96,000
Ministry Total	9,454,012	3,244,992	2,934,992	**1,773,076**	3,200,349	4,732,827
Inter-Ministry Consolidations	(12)	-	-	-	-	-
Consolidated Total	9,454,000	3,244,992	2,934,992	**1,773,076**	3,200,349	4,732,827
EXPENSE						
Ministry Support Services	7,887	7,391	7,391	**7,143**	7,134	7,282
Resource Development and Management	101,942	94,019	94,019	**91,105**	90,963	93,370
Biofuel Initiatives	70,275	92,000	85,000	-	-	-
Cost of Selling Oil	176,426	184,616	120,000	**156,308**	184,078	187,870
Energy Regulation	256,612	253,252	253,252	**245,416**	244,812	249,587
Settlements Related to Energy Lease Cancellation	4,123	-	-	-	-	-
Utilities Regulation	33,810	36,940	36,940	**36,238**	36,145	36,848
Carbon Capture and Storage	53,914	291,700	160,400	**202,202**	149,426	51,936
Orphan Well Abandonment	15,760	30,500	30,500	**30,500**	30,500	30,500
Post-Closure Expense	-	-	-	**230**	230	230
Consolidated Total	720,749	990,418	787,502	**769,142**	743,288	657,623
Net Operating Result	8,733,251	2,254,574	2,147,490	**1,003,934**	2,457,061	4,075,204
CAPITAL INVESTMENT						
Ministry Support Services	127	-	-	-	-	-
Resource Development and Management	3,847	5,999	5,999	**5,399**	5,399	5,399
Energy Regulation	20,854	9,000	9,000	**9,000**	9,000	9,000
Utilities Regulation	1,042	1,000	1,000	**1,000**	1,000	1,000
Total	25,870	15,999	15,999	**15,399**	15,399	15,399